

Sustainable Sunnyvale
Where We Are / Where We're Going

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WATER RESOURCE MANAGEMENT

Lead: Department of Public Works

Goal: Manage potable water demand through the effective use of water rates, conservation programs and reclaimed water. (*Policy 3.1.1, Goal 3.1D*)

Current Services & Practices

Services

- Residential plumbing retrofit – providing low-flow showerheads and aerators to residents free of charge.
- Subsidized, in conjunction with Santa Clara Valley Water District (SCVWD) replacement of old, high flow toilets with low flow toilets. (Though not actively replacing toilets right now, this program replaced hundreds of toilets in the past few years.)
- System water audits, leak detection, and repair – all accounts are metered for accountability purposes, with the City offering help to residential customers to determine if a leak exists in their property and implementing a leak detection program on distribution pipelines throughout the city.
- Recycled water – the City set up a pipeline system based on the concentration of potential customers, and has converted approximately 90 private and public sites, including the City's Baylands Park and Municipal golf course, to recycled water for irrigation of turf areas.
- Public information and school education programs – Sunnyvale offers a water pollution and conservation outreach program spearheaded by Water Pollution Control Plant staff. The program teaches youth about the function of wastewater treatment, water pollution prevention and water conservation. The Creek Education program, also offered, provides watershed, urban runoff, water pollution prevention, storm water, creek education, water conservation and wastewater information
- The City also participates in several of Santa Clara Valley Water District's (SCVWD) water conservation programs, such as the Irrigation Technical Assistance Program (ITAP) for conservation in large landscapes; water audits for residential, industrial and commercial customers; High Efficiency clothes washer rebates; Ultra-Low-Flow toilet replacement programs; etc.
- The Public Safety Department trains emergency responders to make runoff management at emergencies a high priority and to take early steps to mitigate fluid and other contaminant infiltration into the storm drains by means of dykes, adsorbents and other appropriate methods.
- Monitoring of water (drinking water and surface water) quality:
 - Sunnyvale receives potable water from San Francisco PUC and Santa Clara Valley Water District for distribution to residents. Both sources are treated with chloramine for disinfection with minimal objectionable by-products, and San Francisco water is additionally fluoridated.
 - Another water source for Sunnyvale is water from City-owned wells. This water is not treated at all, but is regularly tested for contaminants to ensure purity.
 - City staff monitors quality and regulatory compliance of all potable water by collecting samples at established points in the distribution system, and testing them for microbiological (e.g. total and fecal coliform), additive residual (e.g. chlorine, trihalomethanes) and other contaminants (e.g. metals, nitrates), and also for water quality (e.g. odor, color, turbidity). Testing is done by Water Pollution Control Plant (WPCP) staff and outside laboratories on an established, routine weekly, monthly, and quarterly basis.

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- Backflow prevention program – the City monitors the testing of all backflow devices and, if necessary, their replacement on a yearly basis to ensure protection of the potable water system against siphoning of contaminated water back into the water system.
- Annual maintenance of drain inlets and outfalls – staff inspects and cleans, either by hand or machine, drain inlets and outfalls before the rainy season starts. This removes trash and litter accumulated during the dry months and prevents contamination of stream and bay waters.
- Marking of drain inlets – staff applies markers reading “Flows to Bay” to drain inlets where none exist, and replaces markers that are in bad condition to remind residents that anything dropped into the inlets will go down to the bay.

Practices

- Metering with commodity rates – the City encourages all new commercial, industrial, and multi-family developments to have dedicated water meters and separate accounts for landscape irrigation.
- Conservation pricing – Sunnyvale has an inverted rate structure involving different rate blocks with a minimum rate for basic water requirements, and rate increases for increased water usage.
- Regulated conservation in landscaping – Ordinance 19.38.070 regulates conservation in landscaping, and applies to new and rehabilitated landscaping for public and private development projects.
- Water Waste Prohibition – the City has a list of non-essential water practices that are prohibited in Sunnyvale, such as broken or defective plumbing, sprinklers, watering or irrigation systems; water escaping and flowing into gutters or streets; using potable water to wash sidewalks, driveways, etc. unless an automatic shutoff valve is used; installation of a single pass cooling process in new construction; etc.
- Utilization of water conservation devices throughout City buildings, including trying out waterless, or low flow urinals, low flow toilets, auto flush toilet valves, and auto on/off faucets.
- Replacement of cotton-jacketed fire hose with synthetic hose, eliminating the need to use water to wash the hose.

Services / Policies in Development

Services

- Expansion of the recycled water program, by encouraging use in areas where it is already available, and expansion into parts of the City where recycled water is currently unavailable.
- Checking into other possible uses of recycled water (including cooling towers, and surface application for the recharging or ground water, etc.).
- Financial component to include further conservation-based pricing.
- Additional water quality testing points for the distribution system will be added in 2008 to comply with new state and federal regulations.

Practices

- Further evaluation and experimentation with waterless/low water urinals in City buildings.

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Into the Future - DRAFT

- Best practices for review
- Potential items for Study Issue papers

Operations Items That Might Be Considered for Implementation

- Use of recycled water for all City-owned buildings and activities, where feasible.
- Xeriscape education and training of retail garden/irrigation supply houses' staff.
- Promote water-use budgets for businesses.

Policy Items That Might Be Study Issue Topics

- Sub-metering of mobile home parks and other multifamily and private developments. (Study Issue already proposed for mobile home parks)
- Landscape constraints for new landscaping (turf limitations/regulations/water-efficient plantings).
- Require 1.6 gallon-per-flush toilets and 0.5 gallon-per-flush urinals to be installed in all new buildings.
- Require 1.6 gallon-per-flush toilets to be installed at the time of sale of existing buildings.
- Replacement of inefficient water-using equipment.
- Retrofitting sub-metering for existing multifamily locations.
- Replacement of clothes washers in coin-operated laundries.
- Irrigation system upgrades.
- Dedicated irrigation meters for all new accounts.
- Home leak detection/repair services.
- ET controller (irrigation) rebates.
- Focused water audits for hotels/motels.
- Hotel/motel retrofit with water savings devices.
- Require dual plumbing to provide recycled water for all new construction.
- Award program for water savings by businesses.
- Financial incentives for businesses to comply with water-use budgets.